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| FORM PTO-1449 SECOND SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT | | ATTY. DOCKET NO. 0652.2190001/EKS/M-M | APPLICATION NO. 09/987,455 |
| | | APPLICANT Manosroi et al. | FILING DATE November 14, 2001 |
| | | GROUP 1652 | |

U.S. PATENT DOCUMENTS

| EXAMINER INITIAL | DOCUMENT NUMBER | DATE | NAME | CLASS | SUB-CLASS | FILING DATE |
|------------------|---------------------|------------|-----------------|-------|-----------|-------------|
| ME | AA | | | | | |
| ME | AB1 2003/0013150 A1 | 01/16/2003 | Manosroi et al. | | | 11/14/2001 |
| | AC1 2003/0049729 A1 | 03/13/2003 | Manosroi et al. | | | 11/14/2001 |
| | AD | | | | | |
| | AE | | | | | |
| | AF | | | | | |
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FOREIGN PATENT DOCUMENTS

| EXAMINER INITIAL | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUB-CLASS | TRANSLATION |
|------------------|-----------------|------------|---------|-------|-----------|-------------|
| | AL | | | | | Yes No |
| | AM | | | | | Yes No |
| ME | AN2 WO 02/40696 | 05/23/2002 | WIPO | | | Yes No |
| ME | AO2 WO 02/40650 | 05/23/2002 | WIPO | | | Yes No |
| | AP | | | | | Yes No |

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

| | | | |
|----|----|----|---|
| ME | AR | 17 | Hu, S.Z., et al., "Minibody: A Novel Engineered Anti-Carcinoembryonic Antigen Antibody Fragment (Single-chain Fv-CH ₁) which exhibits rapid, high-level targeting of xenografts," <i>Cancer Res.</i> 56:3055-3061, American Association for Cancer Research (1996). |
| ME | AS | 17 | Huston, J.S., et al., "Protein engineering of antibody binding sites: Recovery of specific activity in an anti-digoxin single-chain Fv analogue produced in <i>Escherichia coli</i> ," <i>Proc. Natl. Acad. Sci. USA</i> 85:5879-5883, National Academy of Sciences (1988). |
| ME | AT | 17 | Kortt, A.A., et al., "Single-chain Fv fragments of anti-neuraminidase antibody NC10 containing five- and ten-residue linkers form dimers and with zero-residue linker a trimer," <i>Protein Eng.</i> 10:423-433, Oxford University Press (1997). |

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| EXAMINER | N Shad | 4/26/04 | DATE CONSIDERED |
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EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.



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| | AL | | | | | | Yes No |
| | AM | | | | | | Yes No |
| | AN | | | | | | Yes No |
| | AO | | | | | | Yes No |
| | AP | | | | | | Yes No |

| OTHER (Including Author, Title, Date, Pertinent Pages, etc.) | | | | | | | |
|--|----|-----------|---|--|--|--|--|
| <i>NL</i> | AR | <u>18</u> | Lovejoy, B., et al., "Crystal Structure of a Synthetic Triple-Stranded α -Helical Bundle," <i>Science</i> 259:1288-1293, American Association for the Advancement of Science (1993). | | | | |
| <i>NL</i> | AS | <u>18</u> | NCBI Entrez, Genbank report, Accession No. AF268281, from Rader, C., and Barbas, C.F. III (October 2000). | | | | |
| <i>NL</i> | AT | <u>18</u> | Pack, P., et al., "Improved Bivalent Miniantibodies, with Identical Avidity as Whole Antibodies, Produced by High Cell Density Fermentation of <i>Escherichia coli</i> ," <i>Bio/Technology</i> 11:1271-1277, Nature Publishing Co. (1993). | | | | |

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| <i>Nel</i> | AR | <u>19</u> | Pack, P., et al., "Tetraivalent Miniantibodies with High Avidity Assembling in Escherichia coli," <i>J. Mol. Biol.</i> 246:28-34, Academic Press Ltd. (1995). | | | | |
| <i>Nel</i> | AS | <u>19</u> | Perisic, O., et al., "Crystal structure of a diabody, a bivalent antibody fragment," <i>Structure</i> 2:1217-1226, Current Biology Ltd. (1994). | | | | |
| <i>Nel</i> | AT | <u>19</u> | Sivaprasadarao, A. and Findlay, J.B., "Expression of functional human-retinol-binding protein in Escherichia coli using a secretion vector," <i>Biochem. J.</i> 296:209-215, Biochemical Society/Portland Press (1993). | | | | |

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| EXAMINER | <i>NEshed 4/26/09</i> | DATE CONSIDERED |
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| AP | | | | | | | Yes No |

| OTHER (Including Author, Title, Date, Pertinent Pages, etc.) | | | |
|--|----|-----------|--|
| <i>Me</i> | AR | <u>20</u> | NCBI Entrez, GenBank Report, Accession No. E02814, from Habuka, N., et al. (1991). |
| | AS | | |
| | AT | | |

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| EXAMINER | <i>Notched 1/28/04</i> | DATE CONSIDERED |
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